



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,918	11/01/2001	Lovell H. Camnitz	10011211-1	7753

7590 04/22/2004
AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

GUTIERREZ, ANTHONY

ART UNIT	PAPER NUMBER
----------	--------------

2857

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,918

Applicant(s)

CAMNITZ ET AL.

Examiner

Anthony Gutierrez

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 19-21 and 25-32 is/are rejected.
- 7) ☒ Claim(s) 15-18, 22-24 and 33-35 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it contains the phrase, "is disclosed" in line 2. Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities:

On page 21 of the specification, the copending application mentioned has an incomplete serial number.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application

Art Unit: 2857

filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-14, 19-21, and 25-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Jungerman (United States Patent Application Publication US 2002/0196055 A1).

The applied reference has a common inventor and Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As to claims 1, 2, 6, 7, 8, 9, 20, 21, 25, 26, 27, and 28, Jungerman discloses a sampling apparatus capable of being used with high data rate signal jitter measurement systems, comprising: a first sampling circuit connected to sample a data signal and output a first sample associated with a first value of said data signal; a second sampling circuit connected to sample said data signal and output a second sample associated with a second value of said data signal (Figure 3), said second value being offset in time from said first value (paragraph 0061); at least one sampling strobe connected to generate at least one output pulse to drive said first and second sampling circuits (Figure 3); and a delay element connected to said second sampling circuit and configured to provide the offset in time between said first value and second

value, said first and second samples being used to measure the jitter associated with said data signal (0061-0063).

As to claims 3, 4, 11, and 30, Jungerman discloses that said second sample is used to determine the transition direction associated with a zero-crossing of said data signal in order to determine the jitter associated with said zero-crossing, said zero-crossing being determined from said first sample (paragraph 0020 and 0021).

As to claims 5, 13, and 31, Jungerman discloses that the circuitry comprises a delay element connected to one of said plural samplers, said delay element being set to an integer multiple of the bit period of said data signal, said samples being used to determine the time interval jitter associated with first and second zero-crossings of said signal (paragraph 0065).

As to claims 10 and 29, Jungerman discloses a single pattern trigger circuit connected to trigger said first and second sampling strobes at a time aligned with a first zero-crossing of said data signal, with a delay element being operatively connected between said pattern trigger circuit and said second sampling circuit to delay triggering of said second sampling circuit at a time aligned with a second zero-crossing of said data signal, said first and second samples being used to determine the time interval jitter between said first and second zero-crossings (paragraphs 0063-0068).

As to claims 14 and 32, Jungerman discloses sampling a reference clock signal to produce a first reference clock sample, said first reference clock sample being used to determine the phase of said reference clock signal at the time at least said first sample of said data signal is taken (paragraphs 0046 and Abstract).

As to claim 19 Jungerman discloses first and second analog-to-digital converters connected to receive said first and second samples, respectively, and output first and second digital samples, respectively (paragraphs 0036-0039).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jungerman (United States Patent Application Publication US 2002/0196055 A1).

Jungerman does not specifically disclose additional circuits or delays beyond what is necessary for the system of invention.

It would have been obvious to one of ordinary skill in the art at the time of invention to include additional circuits and delays since it is held that the mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USBQ 8.

Allowable Subject Matter

Art Unit: 2857

8. Claims 15-18, 22-24, and 33-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The Applicant's claimed invention is deemed to contain allowable subject matter over the prior art as the prior art fails to teach or fairly suggest an apparatus comprising a splitter associated with a first sampling circuit and connected to receive a reference clock signal and split the clock signal into first and second signal paths, the reference clock signal being filtered to be sinusoidal, further including a delay configured to delay the reference clock signal on the second signal path by around ninety degrees connected to a circuit used to determine the phase of the reference clock signal at the time at least the first sample is taken.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,640,193 B2 to Kuyel discloses a system for measuring jitter that includes a signal splitter, a delay element along one path, and a data converter for sampling.

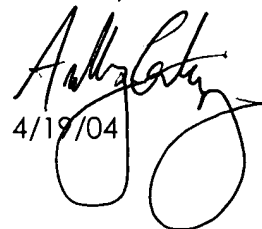
US Patent 6,522,983 B1 to Dobos et al. discloses a strobe generator connected to a sampler and a calibration sampler including the use of a delay element and a phase startable clock device.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Gutierrez whose telephone number is (571) 272-2215. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Gutierrez



4/19/04



EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800